

IN THE CLAIMS

Please amend the claims as follows:

Please cancel Claims 1-7.

1 8. (original) A computer program product residing on a computer usable medium for
2 processing structured assembly language, said computer program product comprising:

3 program code means for implementing a state machine having an IF state, an
4 ELSE state, an END_IF state, an ELSE_IF state, and a SETUP_IF state;

5 program code means for transitioning from said IF state or said ELSE_IF state to
6 said SETUP_IF state, in response to recognizing a SETUP_IF clause; and

7 program code means for transitioning from said SETUP_IF state to said ELSE_IF
8 state, in response to recognizing an ELSE_IF clause.

1 9. (original) The computer program product of Claim 8, wherein said computer program
2 product further includes program code means for transitioning from said IF state to said ELSE
3 state, in response to recognizing an ELSE clause.

1 10. (original) The computer program product of Claim 8, wherein said computer program
2 product further includes program code means for transitioning from said IF state to said END_IF
3 state, in response to recognizing an END_IF statement.

1 11. (original) The computer program product of Claim 8, wherein said computer program
2 product further includes program code means for transitioning from said IF state to said ELSE_IF
3 state, in response to recognizing an ELSE_IF clause.

1 12. (original) The computer program product of Claim 8, wherein said computer program
2 product further includes program code means for transitioning from said ELSE state to said
3 END_IF state, in response to recognizing an END_IF statement.

1 13. (original) The computer program product of Claim 8, wherein said computer program
2 product further includes program code means for transitioning from said ELSE_IF state to said
3 END_IF state, in response to recognizing an END_IF statement.

1 14. (original) The computer program product of Claim 8, wherein said computer program
2 product further includes program code means for transitioning from said ELSE_IF state to said
3 ELSE state, in response to recognizing an ELSE clause.

1 15. (original) A data processing system having an assembler for processing structured
2 assembly language, said data processing system comprising:

3 a state machine having an IF state, an ELSE state, an END_IF state, an ELSE_IF
4 state, and a SETUP_IF state;

5 means for transitioning from said IF state or said ELSE_IF state to said SETUP_IF
6 state, in response to recognizing a SETUP_IF clause; and

7 means for transitioning from said SETUP_IF state to said ELSE_IF state, in
8 response to recognizing an ELSE_IF clause.

1 16. (original) The data processing system of Claim 15, wherein said data processing system
2 further includes means for transitioning from said IF state to said ELSE state, in response to
3 recognizing an ELSE clause.

1 17. (original) The data processing system of Claim 15, wherein said data processing system
2 further includes means for transitioning from said IF state to said END_IF state, in response to
3 recognizing an END_IF statement.

1 18. (original) The data processing system of Claim 15, wherein said data processing system
2 further includes means for transitioning from said IF state to said ELSE_IF state, in response to
3 recognizing an ELSE_IF clause.

1 19. (original) The data processing system of Claim 15, wherein said data processing system
2 further includes means for transitioning from said ELSE state to said END_IF state, in response
3 to recognizing an END_IF statement.

1 20. (original) The data processing system of Claim 15, wherein said data processing system
2 further includes means for transitioning from said ELSE_IF state to said END_IF state, in
3 response to recognizing an END_IF statement.

1 21. (original) The data processing system of Claim 15, wherein said data processing system
2 further includes means for transitioning from said ELSE_IF state to said ELSE state, in response
3 to recognizing an ELSE clause.

1 22. (currently amended) An assembler residing in a data processing system for processing
2 structured assembly language, said assembler comprising:

3 means for implementing a state machine having an IF state, an ELSE state, an
4 END_IF state, an ELSE_IF state, and a SETUP_IF state;

5 means for identifying a SETUP_IF clause;

6 means for associating said identified SETUP_IF clause with an ELSE_IF clause
7 having a test condition; and

8 means for inserting instructions from said identified SETUP_IF clause prior to the
9 test condition of said ELSE_IF clause where said ELSE_IF clause logically follows a
10 prior IF clause or a prior ELSE_IF clause.

Please add Claim 23 as follows:

1 23. (new) A computer program product residing on a computer usable medium for processing
2 structured assembly language, said computer program product comprising:

3 program code means for implementing a state machine having an IF state, an
4 ELSE state, an END_IF state, an ELSE_IF state, and a SETUP_IF state;

5 program code means for identifying a SETUP_IF clause;

6 program code means for associating said identified SETUP_IF clause with an
7 ELSE_IF clause having a test condition; and

8 program code means for inserting instructions from said identified SETUP_IF
9 clause prior to the test condition of said ELSE_IF clause where said ELSE_IF clause
10 logically follows a prior IF clause or a prior ELSE_IF clause.